## ABSTRACT

A frequency tracking device (FTD) in particular for use in a OFDM communication system comprises a selector (SEL) which selects on the basis of N channel coefficients ($C_{est}$) a number M of subcarriers corresponding to the M channel coefficients ($C_{est}$) having the largest absolute values. An evaluator (EVAL) of the frequency tracking device (FTD) determines a frequency deviation estimate ($f_{off,est}$) on the basis of the selected M subcarriers and the selected M channel coefficients. In addition to or instead of a feedback correction unit (CORR1) provided upstream of a multi-carrier filter bank (8; FFT), the frequency tracking device (FTD) can also comprise a feed forward correction unit (CORR2) provided downstream of the receiver multi-carrier filter bank (8). In this case the selector (SEL) and the feed forward correction unit (CORR2) operate on the same data symbols such that the correction unit (CORR2) corrects the same data symbols which are subject to the selection and evaluation process in the selector (SEL) and the evaluator (EVAL). Based on the selection and evaluation processes frequency deviations ($f_{off}$) which are introduced into multi-carrier symbols when being transmitted between a transmitter multi-carrier filter bank (4; IFFT) and a receiver multi-carrier filter bank (8; FFT) can be corrected more efficiently, e.g. with a reduced computational complexity.

(Fig.8)